MERIDIAN
MEDICAL TECHNOLOGIES™
A Pfizer Company

Meridian Medical Technologies, Inc.™
1945 Craig Road
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December 17, 2014

Miguel A. Hernández
Director, Compliance Branch
US Food and Drug Administration
8050 Marshall Drive, Suite 205
Lenexa, KS 66214

RE: Meridian Medical Technologies, Inc./ FEI Number: 1950222
Response to Form FDA 483 Issued November 25, 2014

Dear Mr. Hernández:

This letter, with attachment, is in response to the Form FDA 483 issued November 25, 2014 for the general GMP inspection at the Meridian Medical Technologies, Inc. ("MMT") sites in St. Louis, MO and Brentwood, MO that took place October 14, 2014 – November 25, 2014.

MMT and Pfizer appreciate the time and attention devoted to this inspection by the FDA Kansas City District Office, the FDA staff in CDER Office of Compliance, and the FDA inspection team. MMT worked closely and cooperatively with the inspectors at the site to provide information and discussed issues related to our manufacturing operations and quality systems. MMT appreciates the substantive feedback and found the inspection process productive in assisting MMT in numerous constructive ways.

As Discusssed During the Inspection, MMT Has Developed A Process for ATNAA and DuoDote That To Date Eliminates No Fill Units and Significantly Reduces The Level of Low Fills and Other Defects

During the inspection, we discussed the ATNAA and DuoDote validation and manufacturing process with the FDA inspectors – focusing particularly on the enhancements that provide for a more robust process. The 483 does not reference any observations related to the validations for these products. We believe we are ready to proceed with a reliable product supply of these essential products and

would like to discuss the DD-250 process for reviewing batch records with the FDA Kansas City District Office.

The data shows that the manufacturing process for ATNAA and DuoDote at this time is producing quality product that is within specifications. Key elements of the ATNAA and DuoDote manufacturing process include:

- An enhanced production process for ATNAA and DuoDote that to date eliminates no fill units.
- An enhanced inspection process to detect and remove a number of defects.
- (b) (4) and to the inspection process designed to reduce the number of low fill units.

These important elements, along with a number of other enhancements, were accomplished working in close coordination with FDA and (b) (4). MMT produced process validation (PV) batches in both June 2013 and September 2013, discussed the results with FDA and (b) (4) and implemented changes and process enhancements that led to the submission of a prior approval supplement (PAS) for ATNAA on December 27, 2013 (a PAS for DuoDote was submitted to FDA on June 18, 2014). FDA approved the PAS for ATNAA on May 15, 2014. MMT submitted a CBE-0 for ATNAA on October 9, 2014, reflecting the process validation data for additional changes (b) (4) to further control the filling process to prevent low fills during production of ATNAA (an amendment was filed for the DuoDote PAS on the same date).

It is important to recognize that data from the PV batches produced for the October 2014 CBE-30 submission demonstrated that there were zero no fills, consistent with the September 2013 PV batches submitted with the ATNAA PAS. In addition, there was a significant reduction in low fill units to (b) (4)% (the new specification limit for low fill units is (b) (4)%). This (b) (4)% rate is much lower than the (b) (4)% rate of low fill units in the September 2013 PV Batches, and is well below the (b) (4)% rate in the initial June 2013 PV Batches.

Given the importance of this drug and our responsibility of ensuring a sustainable supply, Pfizer will have a third party conduct a lot-by-lot batch record review prior to submission for FDA DD250 review. We will initiate this supportive review process in January (consultants need to be selected and educated regarding this product manufacturing process) and execute this program for approximately (b) (4)

MMT Is Continuing To Develop Process Enhancements (b) (4) (b) (4)

Resources at the MMT site were substantially focused on the ATNAA/DuoDote manufacturing process and the supply needs for these products, and, as a result, MMT believed there was an understanding (b) (4) In keeping with this prioritization, MMT committed that it would not release other products that relied

solely on manual visual inspection for detection of missing drug until it implemented process improvements similar to those being implemented for ATNAA and DuoDote. At that time, MMT

(b) (4)

A comprehensive investigation was performed in 2013 for all products and all lots filled on the (b) (4) since April 2008 and all products and all lots filled on the (b) (4) filler since October 2011 within expiry. This investigation examined defects for missing drug, low filled units, particle generation, and sterility assurance through media fills, glass breakage, batch record data and complaints. Based upon these reviews, it was determined that there were no issues that adversely affected released products. MMT discussed the discontinuation of these products with FDA in connection with FDA's November 22, 2013 announcement of the disruption in supply of these products and FDA's October 24, 2014 announcement of the extension of expiry dating for these products for one year beyond the labeled date. MMT also presented its assessment of these products, and its plans for enhancing the process of these products (b) (4) (b) (4) (b) (4)

MMT is now working to implement changes to the manufacturing processes for these other military products, with the ability to implement the lessons learned from the changes successfully implemented for ATNAA and DuoDote. The process enhancements will include actions to address the outcome of the investigations of low delivered volume for AtroPen and morphine that are referenced in the 483 observations.

We will develop a thorough (b) (4) Enhancement Plan (the "Plan") that MMT will send FDA by February 28, 2015 that will detail going forward remediation activities for these products with appropriate timelines and deliverables. After the Agency has reviewed the Plan, we welcome an opportunity to discuss our approach and gain your expert advice.

MMT plans to submit updates on the Plan to you on a quarterly basis, with our first update to be submitted by June 15, 2015 (for the three month period ending May 31, 2015). In addition, we would propose meeting with your office on a quarterly basis (in person or by telephone conference) to review the Plan and our progress, and to re-calibrate our Plan to incorporate your important input.

MMT Has Enhanced Its Quality System Through Implementation Of The MMT Quality Plan – Prioritized Improvement Plan Dated August 30, 2013

As outlined in the cover letter to MMT's March 25, 2013 Response to the FDA Form 483 issued on March 4, 2013, MMT undertook a holistic quality assessment and improvement plan for the Brentwood and Westport facilities beginning in March 2013. All systems, controls and

processes that assure the quality of finished product were included, encompassing the following GMP areas: Quality Systems, Laboratories, Facilities and Equipment, Materials, Production, Packaging and Labeling, and Validation.

The initial part of the assessment phase, completed on May 15, 2013, evaluated document control, documentation practices in the laboratory and operations, inventory control, training, change control, management notification, Field Alert reporting, aseptic controls and deviation investigations and is documented in the MMT Quality Plan, dated May 15, 2013. The second part of the assessment phase consisted of a review across seven GMP systems, comparing the current state of MMT operations to the 103 Pfizer Quality Standards (PQS) that are applicable to operations at the Brentwood and Westport facilities.

As a result of the second phase of the assessment, MMT identified a number of recommendations for improvement, which are detailed in the MMT Quality Plan -- Prioritized Implementation Plan dated August 30, 2013. MMT provided copies of the MMT Quality Plan dated May 15, 2013 and the MMT Quality Plan -- Prioritized Implementation Plan dated August 30, 2013 to the FDA Kansas City District Office on September 9, 2013. MMT also provided copies of these documents in advance of the meeting with the FDA CDER Office of Compliance on November 20, 2013 and it discussed its progress with the Agency at that meeting.

MMT continued to implement the recommendations for improvement in 2013 and 2014 and updated FDA on the status of its progress in MMT's Quality Plan – Update on Prioritized Improvement Plan dated June 26, 2014 ("MMT Quality Plan Update" dated June 26, 2014). MMT provided a copy of the update to the FDA Kansas City District Office on July 25, 2014. During the inspection, the inspectors reviewed the MMT Quality Plan Update and the supporting documentation demonstrating the implementation of these recommendations by MMT.

MMT has also enhanced its focus on Quality Culture, drawing on expertise from other Pfizer locations. Since April 2013, MMT has recruited a new site leader and new site quality leader, each with significant experience at other Pfizer manufacturing locations. In addition, there are new leaders for other quality and operational roles with significant experience at other Pfizer locations, including two senior managers for Quality Assurance, a senior manager for Validation and three senior managers for manufacturing. MMT has also supplemented its existing resources when necessary with colleagues from other sites and with contracted resources. As an example, in October 2014 MMT added resources from other Pfizer locations and contractors to improve timely completion of corrective and preventive actions following deviation investigations.

MMT Has Investigated The Complaints For EpiPen and EpiPen Jr. And Concluded There Is Not An Impact On Marketed Lots Of These Products

The 483 includes observations relating to EpiPen and EpiPen Jr., including an observation relating to the complaint investigations. MMT has received 403 complaints for 2014, year to

date, which represents a complaint rate of (b) (4)% as compared to the number of units sold in 2014 to date.

As part of its complaint investigation process, MMT reviewed the complaints for bent needle, spontaneous activation, liquid cloudy and failure to activate that are cited in the 483. MMT has received samples for 60% of the above-mentioned complaint categories, which did not confirm any of the complaints. In addition, MMT performed a test on a retain unit from the respective complaint lots, which did not demonstrate the reported defect.

Based on its complaint investigation and review of batch records and complaint and retain samples, MMT has concluded that there is not a quality issue for released lots of EpiPen and EpiPen Jr. In order to further evaluate the complaints in these categories, MMT will form a joint team with its customer/NDA holder to assess whether there are opportunities for process enhancement or customer communications to reduce the number of complaints in these areas. This joint team will be formed in January 2015 and the outcome of the assessment and any actions taken will be documented.

We will contact you in early January and to discuss any questions the Agency may have regarding our response, and to discuss a date for a meeting regarding our Plan, 483 commitments, and related site issues.

Sincerely,

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